I Claim:

1. In an apparatus comprising a two-dimensional array of ferrules formed with a longitudinal bore and wherein an optical fiber passes through said bore of each of said ferrules and the end of the optical fiber extends from the face of said ferrule a predetermined distance and into a fiber alignment hole formed in a substrate and having an inside edge formed with at least one corner, a method of aligning fiber arrays, comprising the steps of:

arranging two or more ferrules into a two-dimensional array;

securing said two or more glass ferrules together to form an array of ferrules;

inserting an optical fiber through said bore of each of said two or more ferrules until the end of said optical fiber extends from said ferrule a predetermined distance;

positioning said end of each said optical fiber into a corresponding fiber alignment hole formed in a substrate; and

displacing said substrate in one or more directions such that the end of the fiber contacts the corner formed on the inside edge of the fiber alignment hole.

2. The method of claim 1, further comprising:

securing said substrate to said array of ferrules.

3. The method of claim 2 wherein securing said substrate to said array of ferrules further comprises:

attaching a bonding block to both said substrate and said array of ferrules.

4. The method of claim 1, wherein displacing said substrate in one or more directions such that the end of the fiber contacts the corner formed on the inside edge of the fiber alignment hole further comprises moving said substrate in a plane substantially perpendicular to said optical fiber.

5. The method of claim 1, wherein securing said two or more glass ferrules together to form an array of ferrules further comprises:

applying an epoxy to said ferrules and holding said ferrules in a two-dimensional array; and

exposing said epoxy to ultraviolet radiation until said epoxy is cured.

6. The method of claim 1, wherein said predetermined distance is in the range of five to ten millimeters (5-10 mm).

7. The method of claim 1, further comprising:

securing each said optical fiber in said ferrule.

8. The method of claim 7, wherein securing each said optical fiber in said ferrule further comprises:

applying ultraviolet epoxy to each said optical fiber; and

exposing said epoxy to ultraviolet radiation to cure said epoxy.

9. The method of claim 1, further comprising polishing said end of each said optical fiber.

10. The method of claim 1, wherein inserting one optical fiber through each of said two or more ferrules until the end of said optical fiber extends from said ferrule a predetermined distance further comprises:

positioning a reference plate a said predetermined distance from said array of ferrules and extending each fiber from said ferrule until it contacts said reference plate.

11. The method of claim 10, wherein said predetermined distance is seven millimeters (7 mm).

12. The method of claim 1, further comprising forming an array of fiber alignment holes in a substrate, wherein said the corner of each said fiber alignment hole is precisely located; and

wherein the location of each said optical fiber may be determined within said fiber alignment hole.

13. An optical fiber array, comprising:

a two dimensional array of ferrules, each said ferrule having a face and longitudinal bore;

an optical fiber having an end and extending longitudinally through said longitudinal bore and extending from said face;

a substrate formed with an array of fiber alignment holes, each fiber alignment hole having an inside edge and at least one corner, and each of said array of fiber alignment holes positioned to receive said end of one of said optical fibers; and

wherein said optical fiber contacts said corner of said inside edge of said fiber alignment hole.

14. The optical fiber array of claim 13, further comprising:

one or more bonding blocks, each said bonding block secured to said array of ferrules and said substrate to maintain a displacement between said array of ferrules and said substrate.

15. The optical fiber array of claim 14, wherein said displacement is perpendicular to said optical fiber.

16. The optical fiber array of claim 13, wherein said substrate has a face, and said fiber alignment hole is formed with an angle tapering toward said face.

17. The optical fiber array of claim 16, wherein said angle ranges from zero to forty five degrees (0 - 45°).

18. The optical fiber array of claim 17, wherein said angle ranges from zero to twenty degrees (0 - 20°).

19. The optical fiber array of claim 17, wherein said angle ranges from zero to five degrees (0 - 5°).